

characterized by cell adhesion molecule cleavage. As such, it is respectfully requested that this amendment be entered.

### Amendments

The Applicants have canceled originally filed Claims 1 to 25 and replaced them with newly presented claims 26 to 42. Claims 26 to 31 are directed to the same methods as Claims 1 to 25, but have been slightly reworded. Support for these claims is present in the specification at page 6, lines 1 to 13, the originally filed claims and in experimental section, where serine protease inhibitors are demonstrated to be effective in reversing the effects of long term potentiation. With respect to Claims 32 to 34 these claims find similar support in the application, see e.g., page 6, lines 14 to 18 and the originally filed claims. With respect to Claim 35 to 37, these claims find support in the specification at page 8, lines 3 to 11 and the working exemplification showing that serine protease cleavage of extracellular cell adhesion molecules can contribute to such neurological conditions in the brain. With respect to Claims 38 to 42, these claims find support in a manner analogous to that of Claims 26 to 31. The above discussion demonstrates that new claims 26 to 37 introduce no new matter to the application. As the above new claims introduce no new matter to the application, their entry by the Examiner is respectfully requested.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

### Rejections

35 U.S.C. § 112, 1<sup>st</sup> ¶

Claims 1 to 25 were been rejected under 35 U.S.C. § 112, 1<sup>st</sup> ¶ for the asserted reason that these claims were not enabled by the specification as filed. In view of the cancellation of Claims 1 to 25, this rejection is moot.

With respect to the new Claims 26 to 42, it is respectfully submitted that these claims which are directed to treating specific types of disease conditions with a defined class of agents, i.e., serine protease inhibitors, are fully enabled by the specification which provides extensive written description and working exemplification demonstrating that serine protease inhibitors are effective to treat the defined types of conditions specified in these newly presented claims.

As such, this rejection may be withdrawn.

### 35 U.S.C. § 112, 2<sup>nd</sup> ¶

Originally filed Claims 1 to 25 were rejected under 35 U.S.C. § 112, 2<sup>nd</sup> ¶ for using a number of different terms which assertedly rendered the claims ambiguous. In view of the cancellation of Claims 1 to 25, this rejection is moot. Furthermore, it is respectfully submitted that all of the claims appearing in the currently pending claims, when read in light of the specification, are clear to those of skill in the art. As such, the rejection does not apply against the newly presented claims.

### 35 U.S.C. § 103

Claims 1 to 25 were rejected under 35 U.S.C. § 103 as being unpatentable over Freidrich, Okajima, Veronesi and Pinsky, in view of Kazmirowski. In making this rejection, the Examiner reasoned that the cited primary references teach the general approach of treating neurological conditions with protease inhibitors, and the supplemental Kazmirowski reference discloses the specific aminobenzenesulfonyl compounds employed in the experimental section. As such, the Examiner reasons that what the applicants have done is merely elucidate the mechanism of a method that has been inherently practiced in the prior art, and therefore have not made a patentable invention.

With respect to newly presented Claims 26 to 42, these claims are directed to the treatment/prevention of specific neurological conditions. It is respectfully submitted that, absent the data provided in the present application and working exemplification, one of skill in the art would not have found it obvious to employ serine protease inhibitors for the treatment of the conditions specified in the claims because the cited prior art references provide no suggestion or guidance as to the effectiveness of serine protease inhibitors in the treatment of the specified disease conditions.

As such, the primary references, i.e., Freidrich, Okajima, Veronesi and Pinsky, all fail to provide any guidance as to the activity of serine protease inhibitors with respect to treatment of disease conditions that are the subject of the presently pending claims following entry of the above amendment.

As Kazmirowski has been cited solely for the teaching of a specific class of compounds as serine protease inhibitors, Kazmirowski fails to make up the fundamental deficiencies in the primary references.

Accordingly, presently pending Claims 26 to 42 are not obvious over the combined teaching of Freidrich, Okajima, Veronesi and Pinsky, in view of Kazmirowski and are therefore patentable over the combined teaching of these references.

### **Conclusion**

Applicant submits that all of the claims are in condition for allowance, which action is requested. If the Examiner finds that a telephone conference would expedite the prosecution of this application, please telephone the undersigned at the number provided.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-0815, order number THUR001.

Respectfully submitted,

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Date: March 4, 2002

By: \_\_\_\_\_

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE IN THE CLAIMS**

Please Cancel Claims 1 to 25.

Please enter the following new claims:

--26. A method of treating a host suffering from a pathological condition resulting at least in part from proteolysis of the extracellular domains of cell adhesion molecules, said method comprising:

administering to said host an amount of a serine protease inhibitor effective to treat said host for said condition.

27. The method according to Claim 26, wherein said condition is characterized by the occurrence of sprouting.

28. The method according to Claim 26, wherein said condition is characterized by the occurrence of seizures.

29. The method according to Claim 26, wherein said condition is epilepsy.

30. The method according to Claim 29, wherein said method results in a decrease in seizure proneness.

31. The method according to Claim 26, wherein said host is a mammalian host.

32. A method of treating a host suffering from a pathological condition resulting at least in part from proteolysis of the extracellular domains of cell adhesion molecules resulting from excessive activity of glutamate receptors, said method comprising:

administering to said host an amount of a serine protease inhibitor effective to treat said host for said condition.

33. The method according to Claim 32, wherein said excessive activity results from hypoxia, head trauma or stroke.

34. The method according to Claim 32, wherein said host is a mammalian host.

35. A method of treating a host suffering from a pathological condition resulting at least in part from proteolysis of the extracellular domains of cell adhesion molecules resulting from exogenous tPA activity, said method comprising:

administering to said host an amount of a serine protease inhibitor effective to treat said host for said condition.

36. The method according to Claim 35, wherein said serine protease inhibitor is administered to said host after administration of exogenous tPA.

37. The method according to Claim 35, wherein said host is a mammalian host.

38. A method of preventing the onset of a pathological condition resulting at least in part from proteolysis of the extracellular domains of cell adhesion molecules, which method comprises:

administering to said host an amount of a serine protease inhibitor effective to prevent onset of said condition.

39. The method according to Claim 38, wherein said condition is characterized by the occurrence of sprouting.

40. The method according to Claim 38, wherein said condition is characterized by the occurrence of seizures.

41. The method according to Claim 38, wherein said condition is epilepsy.
42. The method according to Claim 38, wherein said host is a mammalian host. --